

TITLE:

Brief Results of Studying the Connection of Surface Electronic States of Semiconductors with Catalytic Phenomena (Kratkiye itogi izucheniya svyazi poverkhnostnykh elektronnykh sostoyaniy poluprovodnika s kataliticheskimi yavleniyami)

temperature changes of cupric oxide were studied in the atmospheres of O₂, CO and CO₂. It turned out that at temperatures from 20 to 150°C, the contact potential value remained constant in a vacuum, increased with adsorption of oxygen or carbon monoxide, but remained almost constant when heating the cupric oxide within these temperatures. When the mixture of oxygen and carbon monoxide was used, the contact potential value sharply decreased at the instant that catalytic reaction sets in as Graph 1 shows.

Elec conductivity was measured simultaneously. In a vacuum and in the oxygen or carbon monoxide atmospheres, the functional dependence $\lg \sigma (I/T)$ was represented by a straight line (σ denotes elec conductivity). In the case of an oxygen and carbon monoxide mixture, the straight

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Brief Results of Studying the Connection of Surface Electronic States of Semiconductors with Catalytic Phenomena (Kratkiye itogi izucheniya svyazi poverkhnostnykh elektronnykh sostoyaniy poluprovodnika s kataliticheskimi yavleniyami)

line was broken, and the break point corresponded with the temperature at which a sharp contact potential change and generation of catalytic reaction products were observed.

Experiments showed that similar results were obtained when cupric oxide was replaced with nickel oxide. These experiments have shown that the course of contact potential temperature changes is determined by the process of catalytic reaction, and not by semiconductor properties.

A possible interpretation of these experiments, proposed by the authors, is the following: oxygen is adsorbed on surface levels occupied by electrons. A surface level electron is sucked into an oxygen molecule, and the contact potential value therefore rises.

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Brief Results of Studying the Connection of Surface Electronic States of Semiconductors with Catalytic Phenomena (Kratkiye itogi izucheniya svyazi poverkhnostnykh elektronnykh sostoyaniy poluprovodnika s kataliticheskimi yavleniyami)

The catalytic activity of a semiconductor depends on the number of electrons and holes on its surface levels. This connection was confirmed experimentally with manganese dioxide samples, which were heated at various temperatures from 200 to 300°C in a vacuum. This produced samples with different values of conductivity and contact potential. Fig 3 shows that the samples with larger changes in contact potential at gas adsorption also possessed higher rates of catalytic reaction. Therefore, there is a close connection between the rate of a catalytic reaction and the change in filling the surface levels. In this respect, the qualitative aspect is stated but the quantitative is not attempted.

A reaction of nitrogen oxide dissociation on nickel oxide as a catalyst was also investigated. In all cases, the minimum in the contact potential curve and the existence of N₂O dissociation products were

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Brief Results of Studying the Connection of Surface
Electronic States of Semiconductors with Catalytic
Phenomena (Kratkiye itogi izucheniya svyazi
poverkhnostnykh elektronnykh sostoyaniy polu-
provodnika s kataliticheskimi yavleniyami)

observed at a temperature of aprx. 100° C. The general conclusion from all these experiments is as follows: There exists a close relation between the changes of contact potential and surface electronic states of semiconductors, on the one hand, and catalytic reactions on the semiconductor surface, on the other hand. The relation exists in both oxidation and dissociation reactions.

4 graphs are added. The article contains 9 references, of which 4 are Slavic (Russian).

INSTITUTION: Institute of Physics of the Ukrainian Academy of Sciences

PRESENTED BY:

SUBMITTED: No date

AVAILABLE: At the Library of Congress.

Card 5/5

STEPKO, I. I.
Distr: WE4j

27 24
V. Effects of oxygen on the work functions of an electron from copper oxide. V. I. Lyashenko and I. I. Stepko (Acad. Sci., Ukr. S.S.R., Inst. Phys., Moscow). *Zhur. Fiz. Khim.* 31, 1825-8(1957); cf. *C.A.* 50, 1432e.—The changes in the work function and cond. when samples of CuO were heated after the admission of gases may have resulted from the gas adsorption or diffusion during heating. Changes in the function with time were studied at 70-80°, 110-120°, and 190-200° in order to evaluate the role of each factor, by measuring the elec. cond. and the contact p.d. immediately after introducing the gas and at some time later, until satn. was complete. With thin layers of Cu₂O and CuO on the Cu in O₂, atm. the work function and cond. decreased sharply at first, then increased, and the rise was more rapid at higher temps. The fall in the work function and cond. was caused by chemisorption, in agreement with P. F. Vol'kenshtein's theory (*C.A.* 48, 2440f, 67776) on the appearance of new electrons on the surface layers during adsorption, resulting in an increase of the surface charge. A comparison of the available data on the heat of adsorption and diffusion activation (7 and 39 kcal./mol., resp.) caused a subordinate role to be assigned to diffusion.

W. M. Sternberg

SC JF

ROMANOVA, G.P. [Romanova, H.P.]; STEPKO, I.I.

Electronic phenomena on the surface of germanium during adsorption
and catalysis. Dop. AN URSR no.6:585-586 '58. (MIRA 11:9)

1. Institut fiziki AN USSR. Predstavil akademik AN USSR V.Ye.
Lashkarev [V.IE. Lashkar'ov]
(Germanium)

STEPKO, I.I.; ROMANOVA, G.F. [Romanova, H.P.]; CHMEL', N.G. [Chmel', M.H.]

Effect of thermal treatment on the liberation of gas from the surface
of germanium. Urk. fiz. zhur. 5 no. 5:705-707 S-0 '60.
(MIRA 14:4)

1. Institut fiziki AN USSR.
(Germanium)

LYASHENKO, V.I.; ROMANOVA, G.F.; STEPKO, I.I.

Contact potential of the surface of germanium in adsorption and
catalysis. Probl. kin. i kat. 10:111-116 '60. (MIRA 14:5)

1. Institut fiziki AN USSR.
(Germanium) (Catalysis) (Adsorption)

L 17923-63
ACCESSION NR: AT3002443

EWP(q)/EWT(m)/BDS AFFTC/ASD JD/JG
S/2935/62/000/000/0085/0092

AUTHOR: Romanova, F. G.; Stepko, L. I.

TITLE: Silicon surface gassing [Report at the Conference on Surface Properties of Semiconductors, Institute of Electrochemistry, AN SSSR, Moscow, 5-6 June 1961]

SOURCE: Poverkhnostnye svoystva poluprovodnikov. Moscow, Izd-vo AN SSSR, 1962, 85-92

TOPIC TAGS: silicon, silicon-surface gassing, silicon etching

ABSTRACT: An attempt is described to determine the quantity and composition of gases adsorbed by Si single crystals as a result of etching. Specimens of p-Si with a 50-ohms.cm resistivity were etched for 1 min in 2HF : 3HNO₃ mixture. By heating the specimen to 600-800°C and higher, the gases were desorbed; their quantity and mass spectrum were determined. The gases consisted chiefly of H₂O and CO; traces of N₂, H₂, and CO₂ were also found but they could have been due to the presence of incandescent tungsten filaments, glass, etc. in the vacuum vessel. "We are sincerely thankful to V. I. Lyashenko for his/her constant interest in the work and discussing the results." Orig. art. has: 8 figures.

Card 1/2

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58

L 17923-63

ACCESSION NR: AT3002443

ASSOCIATION: Institut poluprovodnikov AN UkrSSR (Institute of Semiconductors,
AN UkrSSR)

SUBMITTED: 00

DATE ACQ: 15May63

ENCL: 00

SUB CODE: PH

NO REF Sov: 003

OTHER: 004

Card 2/2

LYASHENKO, V.I. [Liashenko, V.I.]; SERBA, A.A. [Serba, O.A.]; STEPKO, I.I.

Effect of an electric field on sorption processes on a germanium surface. Dop. AN URSR no.3:350-353 '62. (MIRA 15:5)

1. Institut poluprovodnikov AN USSR. Predstavлено академиком AN USSR V.Ye.Lashkarevym [Lashkar"ov, V.IE.].
(Desorption) (Germanium) (Electric fields)

STEPKO, T. P.

A short summary of the state of the relation between elec-

trone of CO. The electron has a break at the surface temp. The same observation is made at 200° g increases with adsorption of O by loss of electrons at the surface until a saturation potential of C(+) is reached. Since with increasing temp. the conduction also increases, the rate of oxidation and a decrease occur. Samples of metal that show the largest change in ϕ have the largest catalytic activity. The decompos. of $2\text{NO} \rightarrow 2\text{N}_2 + \text{O}_2$ was investigated on 1- μ layers of evapd. foil in cm. Ge. The reaction takes place at 180° on freshly etched surfaces and there is a

any

STEPKO, V.I.

Effect of heat on the summation of stimulations in the center of
the flexion reflex. Fiziol.zhur. [Ukr.] 11 no.4:526-529 Jl-Ag '65.
(MIRA 18:10)

1. Kafedra normal'noy fiziologii Donetskogo meditsinskogo
instituta.

S/085/60/000/03/045/062
D001/D003

AUTHOR: Stepko, Yu. (Sochi)

TITLE: A Relayless Single-Command Radio-Receiver for Model Aircraft

PERIODICAL: Kryl'ya rodiny, 1960, Nr 3, p 27 (USSR)

ABSTRACT: The receiver which the author describes was successfully tested at the aviamodel'nyy kruzhok Doma pionerov (Aeromodelling Circle at the House of Pioneers) in Sochi and proved to have advantages over a similar model powered by a single KBS-0.5 baby battery. The subject of the present article is shown by a circuit diagram (Figure 2), and its components include a 2PLP tube, an NCh amplifier, PEL 0.7, PEL 0.05 \pm 0.06 and PEShO 0.15 wire, a VS-0.5 resistance and an RUM-1 or other transmitter. There are 2 sets of circuit diagrams and 1 circuit diagram.

Card 1/1

STEPKOV, S.M.

Accumulation of carbohydrate in the tubers of *Helianthus tuberosus* L. during the vegetative development of the plant.
Biol Khimiia 26 no.4: 569-574 Jl. Ag. '61. (MIRA 15:6)

I. Laboratoriya organicheskoy khimii Sel'skokhozyaystvennogo
Instituta, Ul'yanovsk.

(CARBOHYDRATES)
(CARBOHYDRATE)

BARTOSZEWSKI, Adam; STEPKOWSKA, Irena; KLONOWSKI, Henryk

Trichomycin in the treatment of Trichomonas infections in humans.
Polski tygod.lek. 14 no.51:2236-2239 21 Dec. '59.

1. Z I Kliniki Polozniczej i Chorob Kobiecych A.M. w Lublinie;
kierownik: prof.dr. St. Liebhart.
(ANTIBIOTICS ther.)
(TRICHOMONAS INFECTIONS ther.)

STEPIKO, J.

New projects of dwellings for statefarms workers.

P. 9, (Rudwojewo Weiskei, Vol. 9, no. 10, Oct. 1956, Warszawa, Poland)

Monthly Index of East European Accessions (FAI) LC. vol. 7, no. 2,
February 1958

112

Bracolin P. S. and Mallein P. S.: J. Paray and S. Stepkowski. *Medyyna Weterynaryjna* 3, 617-50, 1947; *Biol. Abstracts* 22, 1429 (1948).—By biochem. methods a specific substance was obtained from *Brucella abortus* which contained both the proteins and the polysaccharides. By alternate freezing and thawing 2 other preps. were obtained from this substance, and their antigenic nature was tested. The fraction contg. both polypeptides and polysaccharides did not give a ppin. reaction. The polysaccharide fraction appeared to be useful for the complement-fixation test. Further freezing and thawing of this fraction gave a ppt. which gave very good results as an allergen for rabbits infected with *B. abortus*. When tested in cattle it appeared to be as good an allergen as Abortin. Mallein P. S., also obtained by thawing and freezing of a *Mycobacterium mallei* culture, appeared to give better results than other mallein preps. The technique used and the exptl. investigations on animals are described and discussed.

R. D. H.

PARNAS; KUNICKI, W.; STEPKOWSKI, S.

Investigations on colibacillosis in pigs, Med.dosw.Mikrob. 2 no.2:
235-236 1950.
(CLML 20:6)

1. Summary of the report given at 10th Congress of the Polish Micro-
biological and Epidemiological Society held in Gdańsk, Sept. 1949.
(Lublin).

PARNAS, J.; KUNICKI, W.; STEPKOWSKI, S.

Investigations on strains of Corynebacterium isolated in animals.
Med.dosw.Mikrob. 2 no.2:236-238 1950. (CLML 20:6)

1. Summary of the report given at 10th Congress of the Polish Microbiological and Epidemiological Society held in Gdansk, Sept.1949. (Lublin).

STEPKOWSKI, STEFAN

Chemical Abst.
Vol. 48
A pr. 10, 1954
Biological Chemistry

(3)

The action of streptomycin on some microorganisms of the *Pasteurella multocida* group. Stefan Stepkowski (Z. Zakladu Mikrobiol. i Epidemiol. U.M.C.S. Oraz Wojew. Zakladu Hig. Weterynaryjnego, Lublin, Poland). Ann. Univ. Mariae Curie-Sklodowska, Lublin-Polonia, Sect. DD, 5, 455-64 (1950) (English summary). —A study was made on white mice, hens, and rabbits of the action of streptomycin (I) on the infections caused by *P. avicola*, *P. cunicul-septica*, *P. suisepica*, and *P. vituliseptica*. Mice receiving at least 4.0 mg I/day for 5 days and hens receiving at least 60 mg I/day for 4 days and 40 mg I/day for the next 2 days survived, but rabbits obtaining 40 mg I/day for 6 days died.

L. J. Plotrowski

PARNAS, J.; KUNICKI-GOLDFINGER,Wl.; STEPKOWSKI, S.; LORKIEWICZ, Z.;
DABRAWSKI, T.

Research on hemolytic Bacteria coli isolated from hogs. Med.wet.6
no.12:717-721 Dec 50. (CIML 20:6)

1. Of the Institute of Microbiology and Epizootiology of the Veterinary Faculty of Marie Curie-Sklodowska University in Lublin and of the Regional Institute of Veterinary Hygiene in Lublin (Head--Prof.Józef Parnas).

PARNAS, J.; KUNICKI, W.; STEPKOWSKI, S.; LORKIEWICZ, Z.; DABROWSKI, T.

Attempt of typing of strains of enteric bacteria with bacteriophages. Med. dosw. mikrob., Warsz. 4 no. 3:332-333 1952. (CIML 23:3)

1. Summary of work progress presented at 11th Congress of Polish Microbiologists held in Krakow May 1951. 2. Lublin.

PARNAS, J.; STEPKOWSKI, S.; DABROWSKI, T.; PIENIAZEK, J.

Studies on Listerella and Corynebacterium in animals. Med. dosw.
mikrob., Warsz. 4 no. 3:334-336 1952. (CLML 23:3)

1. Summary of work progress presented at 11th Congress of Polish
Microbiologists held in Krakow May 1951. 2. Lublin.

PARNAS, J.; STEPKOWSKI, S.; DABROWSKI, T.; IORKIEWICZ, Z.

Effect of streptomycin, aureomycin and chloramphenicol on micro-
organisms in animals. Med. dosw. mikrob., Warsz. 4 no. 3:337-338
1952. (CML 23:3)

1. Summary of work progress presented at 11th Congress of Polish
Microbiologists held in Krakow May 1951. 2. Lublin.

POL • •

MD ✓ Animal corynebacteria, with particular reference to *Corynebacterium equi*. J. Parnas, T. Dabrowski, S. Stepkowski, Z. Lorkiewicz, and T. Mierzejewski (*Ann. Univ. M. Curie-Skłodowska*, 1952, 7, 209-382).—This detailed monograph includes bacteriology, serology, immuno-chemistry and epizootiology. The described characteristics of the different corynebacteria have been investigated. The causative agent of dangerous pyobacilloses in foals, *C. equi*, has been studied in great detail and recommendations for treating the disease include use of streptomycin, vaccine III and Camphochin. A recommendation of early and frequent vaccination of foals is given. Included E.M. photographs show that *C. equi* has a capsule and the bacteriophage of *C. equi* is established, it exhibits a prophylactic action in experiments. Twenty collected strains have an identical species-group antigen and a type-specific one. An antigenic heterogeneity is present among the strains of *C. pyogenes*. *C. pyogenes humanus* is closely antigenic to *C. pyogenes bovis*, indicating the possibility of the transfer of infection from bovines to man.

E. M. RATTENBURY

(4)

STEPNIEWSKI

POL.

✓ Effect of aureomycin, chloramphenicol, and Brucellin-PS on brucellosis. J. Parusz, S. Stepkowski, and T. Rukasz (*Inst. Univ. M. Curie-Sklodowska, 1953, D, 6, 37-51*).—Groups of rabbits and guinea pigs infected with *Brucella abortus bovis* were treated with aureomycin, chloramphenicol, Brucellin-PS, and the antibiotics together with Brucellin-PS. All the treated animals were

alive after 3 months, whereas half the controls died. Aureomycin is preferred for the treatment of brucellosis, as it gives a high proportion of cures, with complete elimination of *Brucella*, and does not give toxic reactions.

R. Tauszor.

W. PIŁUCHI, S.

KL.MD

"Brudot in Sheep in the Flock "J" of the State Agricultural Farm "3", by
S. STĘPKOWSKI and S. WOŁOSZYN. Research conducted at Chair of Epizootiology,
Veterinary Faculty, Higher School of Agriculture, Lublin. Dir. - Prof. Dr.
Stanisław Krauss. Medycyna Weterynaryjna, Vol. XII, No. 3, Warsaw, PWRiL,
March, 1956.

KRAUSS, St.; STEPKOWSKI, S. (Lublin)

Preliminary observations of the opsonocytophagic test and the formol-gel test of Ciuka in equine infectious anemia. Rocznik nauk roln. wet. 70 no. 1/4:197-199 '60.

(EEAI 10:9)

(Horses) (Infectious anemia) (Opsonins and opsonic index)
(Cytophaga) (Formaldehyde)

STEPKOWSKI, Stefan ...

Studies on the properties of trichomonads in swine and cattle.
Wiadomosci parazyt. 7 no.2:359-361 '61.

1. Katedra Epizocjologii Wydz. Wet., Lublin.

(TRICHOMONAS INFECTIONS veterinary)
(SWINE parasitol) (CATTLE parasitol)

STEPKOWSKI, S.

The technic of the tube agglutination test with animal trichomonads.
Wiadmosci parazyt. 7 no.2:363-364 '61.

1. Katedra Epizocjologii Wydz. Wet., Lublin.

(TRICHOMONAS immunol)

- STEPKOWSKI, Stefan

The colloidal phagocytic test in studies on the antigen structure of trichomonads. Wiadomosci parazyt. 7 no.2:365-366 '61.

1. Katedra Epizooocjologii Wydz. Wet., Lublin.

(TRICHOMONAS INFECTIONS immunol) (PHAGOCYTOSIS)

POLAND

STEPKOWSKI, Stefan; and RZEDZICKI, Janusz, Department of Poultry Diseases
of the Veterinary College of the Agricultural University, Lublin (Zaj. Iad
Chorob Drobui Wydzialu Weterynarii WSR) Head (Kierownik) Docent Dr.
Stefan STEPKOWSKI

"Observations on the Action of Furazol W in Intestinal Coccidiosis in
Chickens"

Lublin, Medycyna Weterynaryjna, Vol 22, No 11, Nov 66; p. 681-682

Abstract [English summary modified]: Treatment of intestinal coccidiosis in chicks with nitrofurazon was more effective when the water soluble preparation Furazol W was added to the drinking water than when Furacoccid was added mixed with the feed. However, availability of any drinking water other than the medicated one (such as rain puddles and dew) would decrease the effectiveness of treatment. 2 tables; 1 Czech, 4 Polish, 4 Western references.

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Z/011/62/019/001/004/017
E073/E136

AUTHORS: Ciborowski, J., and Steplewski, B.
TITLE: On the influence of particle size on the speed of infrared drying
PERIODICAL: Chemie a chemická technologie. Přehled technické a hospodářské literatury, v.19, no.1, 1962, 22, abstract Ch 62-300. (Chem. stos., v.5, no.1, 1961, 3-16).
TEXT: The influence of the size of sand particles on the speed of drying with infrared rays was investigated. The particle diameters varied between 0.102 and 2.5 mm. The first as well as the second drying period was studied. The existence was proved of an optimum diameter of solid particles which corresponded to the maximum speed of drying. The dependence was determined of the absorption capacity of the sand layer on the size of the particles during heating. A similar relation was found to exist for the heat-transfer coefficient.
9 figures, 1 table, 9 references.
[Abstractor's note: Complete translation.]
Card 1/1

STEPLAWSKI, Bohdan; TUSZYNSKI, Kazimierz

Rectification as an object of regulation. Przem chem 40 no.8:419-421
Ag '61.

STEPLEWSKI, Bohdan

Static quality of the automatic control of bicomponent mixture rectification. Przem chem 41 no.3:117-121 Mr '62.

1. Badawczo-Doswiadczałny Ośrodek Automatyzacji "Chemopomiar", Warszawa.

VORBRODT, Andrzej; JONEK, Jan; STEPLEWSKI, Zenon

Histochemical studies on the effect of estrogens on the uterus
and vagina of castrated mice. I. Distribution of DPNH diaphorase
and succinic dehydrogenase. Endokr. pol. 14 no.1:57-68 '63.

1. Zaklad Histologii i Embriologii Sl. AM w Zabrze-Rokitnicy

Kierownik: doc. dr A. Vorbrot.

(UTERUS) (VAGINA) (ESTROGENS)

(PHARMACOLOGY) (SUCCINATE DEHYDROGENASE)

BFRKA, Mieczyslaw; STEPLEWSKI, Bohdan; DRAMINSKA, Krystyna

Studies on the rectification process as a control object. Przem
chem 42 no.1:41-45 Ja '63.

1. Badawczo-Doswiadczały Ośrodek, Pracownia Pomiarów i Automatyki
Chemopomiar, i Instytut Chemii Ogólnej, Warszawa.

501.2D

J. STEFLERSKI and Z. GLKOWSKI, Department of Histology and Embryology,
Medical College (Zaklad Histoologii i Embriologii, Wydzial Medyczny),
Szczecin-Politnica.

"Cytochemical Studies on the Interrelation Between Lysosomes and the
Golgi Zone in the Uterine Epithelium."

Warsaw, Bulletin de l'Academie Polonaise des Sciences, Serie des
Sciences Biologiques, Vol 10, No 11, 1962; pp 495-497.

Abstract (English article): Study on 20 spayed estradiol-primed mice.
Discussion of the role of Golgi apparatus in the production of the
lysosomes. Twelve microphotographs. 6 references.

KOZUBSKA, Mieczyslawa; STEPLEWSKI, Zenon

Histochemical studies on the effect of cortisone on the early stages of liver regeneration in rats. Endokr. pol. 14 no.1: 19-35 '63.

1. Zaklad Histologii i Embriologii Ogolnej w Zabru-Rokitnicy
Kierownik: doc. dr A. Vorbrodt.
(CORTISONE) (PHARMACOLOGY)
(LIVER REGENERATION)
(HISTOCHEMISTRY)

JONEK, Jan; STEPLEWSKI, Zenon

Histochemical studies on the effect of estrogens on the
adrenals of castrated mice. Endokr. pol. 14 no.4:371-387
'63.

1. Zaklad Histologii i Embriologii Slaskiej Akademii Medycznej
w Zabrzu-Rokitnicy Kierownik: doc. dr A. Vorbrodt.
(CASTRATION) (ESTRADIOL) (ADRENAL GLANDS)
(ALKALINE PHOSPHATASE) (ACID PHOSPHATASE)
(ADENOSINE TRIPHOSPHATASE) (DESOXYRIBONUCLEASE)
(ESTERASES) (PARATHION) (LIPOAMIDE DEHYDROGENASE)
(HISTOCHEMISTRY)

GLOWINSKI, Mieczyslaw; STEPLEWSKI, Zenon

Histochemical studies on the localization of phosphatase
activity in the decidua. Ginek. pol. 34 no.4:453-461 '63.

1. Z I Kliniki Poloznictwa i Chorob Kobiecych Sl. AM w Zabru
Kierownik: prof. dr med. M. Glowinski.
(DECIDUA) (PHOSPHATASES) (HISTOCHEMISTRY)

JONEK, Jan; STEPLEWSKI, Zenon

Histochemical studies on the effect of estrogens on the uterus and vagina of castrated mice. II. Distribution of specific and non-specific phosphatases, non-specific esterase and E 600-resistant esterase and acid desoxyribonuclease in the vagina. Endokr. pol. 14 no.3:247-260 '63.

1. Zaklad Histologii i Embriologii Sl. Ak w Zabrze-Rokitnicy
Kierownik: doc. dr A. Vorbrodt.

(VAGINA) (ESTRADIOL) (PHARMACOLOGY)
(HISTOCHEMISTRY) (PHOSPHATASES) (ESTERASES)
(DESOXYRIBONUCLEASE) (PARATHION)

JONAK, Jan; JIRÍ HEDKÝ, Venou; VÁCLAV KALMUS, Miroslava

Pharmacological studies on the effect of estradiol on the uterus and
vagina of castrated mice. I. Distribution of -SH and -SS, protein
groups, mucopolysaccharides and glycogen and on the metachromatic
reaction of the uterus. Endokr. Pol. 15 no.2:213-225 Mr-Ap '64.

I. Zaklad Histologii i Embriologiej Akademii Medycznej w
Wroclawie (Kierownik: doc. dr. A. Vorbreit).

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220018-3

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220018-3"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220018-3

glycosidic linkages, and the presence of a terminal glucose residue in the chain.

10. The following table shows the number of hours worked by each employee.

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653220018-3"

GLOWINSKI, Mieczyslaw; STEPLEWSKI, Zenon; WAROLSKI, Włodzimierz

A study of the reticuloendothelial system (RES) in experimental
toxoplasmosis. *Wiad. parazyt.*, 10 no. 4:367 '64

I. I Klinika Poloznictwa i Chorob Kobiecych Slaskiej Akademii
Medycznej, Zabrze.

WÓJCIK, A.; STEPŁĘŻKI, Z.; PIOMIERCZYK, Z.

Cytochemical investigations on the localization of oxidative enzymes in isolated nuclei of the rat liver. Folia histochem. cytochem. (Krakow) 3 no.2:137-142 '65.

i. Department of Tumour Biology, Institute of Oncology, Gliwice.

ZIAREK, Stanislaw; STEPIEWSKI, Z.

Function of the reticulendothelial system of the liver in
experimental traumatic shock. Med. pracy 16 no.4:283-287 '65.

1. Z I Kliniki Chirurgicznej Slaskiej AM w Zabrzu (Kierownik:
prof. dr. med. S. Szyszko) i z Zakladu Histologii Slaskiej AM
w Zabrzu (Kierownik: doc. dr. med. A. Vorbrot).

KUBACKI, Józef; STERLEWSKI, Zenon; SZCZAKSKI, Roman; KUBACKI, Andrzej

Effect of thyroxin on the morphology and catecholamine content
of the adrenal medulla. Pol. arch. med. wewnet. 35 no.4:491-496
1965.

J. Z I Kliniki Chorob Wewnętrznych Śląskiej AM (Kierownik: prof.
dr. med. J. Japa) i z Zakładu Biologii Nowotworów Instytutu Onko-
logii w Gliwicach (Kierownik: doc. dr. med. M. Chorazy).

KRAUSE, Mieczyslaw; STEPLEWSKI, Zygmunt

On fatigue in the myoneural synapse. Acta physiol pol 12 no.3:
381-387 '61.

1. Z Zakladu Fizjologii Slaskiej A.M. w Zabrzu-Rokitnicy p.o.
kierownika: dr M. Krause.
(MYONEURAL JUNCTION) (FATIGUE)

STE?LOVA, Dagmar, inz.

Education of glassmakers. Sklar a keramik 14 no.4:105-
106 Ap '64.

1. Ministry of Education and Culture, Prague.

STIPLOVA, Dagmar, inz.

Acceptance of students at technical high schools. Sklat a
keramik 15 no.2:3 of cover F '65.

1. Ministry of Education and Culture, Prague.

KOLPAKOVA, T.A.; GOLIYENBIYEVSKAYA, Z.I.; SHEVTSOVA, N.I.; RYBINA, M.I.;
NIKITINA, N.N.; RYBAKOVA, L.F.; SHIPSHINA, N.D.; KORN, A.N.; KO-
ROVKIN, B.F.; KOSYAKOV, K.S.; STEPNAIA, A.A.

Suggestions made at the September 29, 1963, conference of "La-
boratornoe delo" readers, members of the Leningrad Society of Phy-
sicians and Laboratorians. Lab. delo 10 no.4:256 '64. (MIRA 17:5)

1. Predsedatel' pravleniya Leningradskogo obshchestva vrachey-la-
borantov (for Kolpakova). 2. Chleny pravleniya Leningradskogo ob-
shchestva vrachey-laborantov (for all except Kolpakova).

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ACC NR: AP6025681

into an eye ring, and an auxiliary canopy placed inside the main canopy (see Fig. 1). To increase reliability and improve operational qualities, the auxiliary canopy in the form of a reversed cone is fastened to the main canopy's internal shroud lines, which are brought into a small eye ring connected to the main eye ring by a central strand. Orig. art. has: 1 figure.

[WH]

SUB CODE: 01/ SUBM DATE: 03May65/ ATD PRESS: 5049

Card 21213160

APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653220018-3"

SUJAK, I.; GASIOR,S.; STEPNEWSKI, W.

On the effect of an external electric field on the emission
of electrons from additively colored KCl into a gaseous
atmosphere. Pt.1. Acta physica Pol. 24 no.1:51-63 J1'63.

1. Institute of Experimental Physics, University, Wroclaw
(for Sujak). 2. Chair of Physics, Medical Academy, Wroclaw
(for Gasior and Stepniewski).

STEPNIAK, Henryk, mgr inz.

Conference of the photochemical industry in Warsaw. Chemik 15
no.4:142-144 Ap '62.

1. Ministerstwo Przemyslu Chemicznego, Warszawa.

STEPNIAK, Henryk, mgr inz.

Introduction of nuclear techniques. Chemik 16 no.2:52-55 z '63.

1. Ministerstwo Przemyslu Chemicznego, Warszawa.

STEPNIAK, Henryk, inz.

Thirteenth General Convention of the Association of Engineers
and Technicians of the Chemical Industry. Chemik 16 no.3:93
Mr '63.

STERNAK, Henryk, inz.

Use of isotopes and isotopic devices. Chemik 16 no. 4:135-136
Ap '63.

STEPNIAK, Henryk, inz.

Importance of plastics. Chemik 16 no.7/8:217-219 Jl-Ag '63.

WITKOWSKA, Joanna, mgr; STEPHIAK, Henryk, ins.

Color and its application. Chemik 16 no.7/8:230-231 Jl-Ag '63.

STEPNIAK, Henryk, mgr inz.

We are realizing the directives of party and administration
in research works. Chemik 16 no.12:376-377 D'63.

STEPNIAK, Henryk, inz.

Development trends of pesticide production and application,
from the point of view of needs of the national economy.
Chemik 17 no.1:25-27 Ja'64.

"APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653220018-3

SM NIK, Henryk

The Thirty-fifth Congress of Industrial Chemistry in Warsaw, Pt.1,
Chemik 17 no.11:420-421 N '64.

APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653220018-3"

STEPNIAK, Henryk, inz.

Labor conditions connected with the chemicalization of
agriculture. Chemik 18 no.2:63-64 F '65.

STEPNIK, J.

Results of the study of the demand in the General Consumers' Cooperative
establishments of Grunberg. p. 14.
(PRZEMYSŁ GASTRONOMICZNY. Vol. 11, no. 6, June 1956, Warszawa, Poland)

SU: Monthly List of East European Accessions (EEAL) LC. Vol. 6, No. 12, Dec. 1957.
Uncl.

RZUCIDLO, L.; STEPNIAK, R.

Application of enzymatic casein hydrolysates and of yeast extracts in diagnostic culture media for cultivation of *Neisseria gonorrhoeae*.
Przegl. derm., Warsz. 1 no.2:147-150 Sept 1951. (CML 23:2)

1. Of the State Institute of Dermatology and Venereology (Director--Prof. J. Suchanek, M.D.) in Warsaw.

SAPER, Jerzy; STEPNIAK, Roman

Successful largactil therapy of a case of erythromegalia.
Przegl. derm., Warsz. 6 no.5:435-438 Sept-Oct 56.

1. Z Kliniki Neurologicznej A.M. w Warszawie wz. Dyrektora:
prof. dr. I. Hausmanowa. Z Instytutu Dermatologii i Wenerologii
p. o. Dyrektora: doc. dr. T. Stepniewski. Kierownik Działu
Dermatologii: prof. dr. E. Bruner, Warszawa, Klinika Neurologiczna
Akademii Medycznej, Oczki 6.

(ERYTHROMEGALIA, therapy,

chlorpromazine (Pol))

(CHLORPROMAZINE, therapeutic use,

erythromegalia (Pol))

DZULYNSKA, Janina, GAJZLER, Regina, STEPNIAK, Roman

Phosphatides in blood protein fractions of patients with late syphilis. Przegl.derm., Warsz. 8 no.1:1-17 Jan-Feb 58.

1. Z Instytutu Dermatologii i Wenerologii wz. Dyrektora: doc. dr T. Stepniowski Kierownik Działu Klinicznego Wenerologii: doc. dr J. Towpił Kierownik Sekcji Biochemicznej: doc. mgr. J. Dzulynska. Adres: Warszawa, Instytut Dermatologii i Wenerologii, Koszykowa 82a.

(SYPHILIS, blood in
phosphatide determ. in blood protein fractions (Pol))
(BLOOD PROTEINS, in various dis.
late syphilis, phosphatide determ. (Pol))
(PHOSPHOLIPIDS, in blood.
in protein fractions in late syphilis (Pol))

STEPNIAK, Roman

Causes of the appearance of clinical resistance in previously used methods in the treatment of gonorrhea. Przegl. derm. 48 no.8/10: 331-336 '61.

1. Z Kliniki Dermatologicznej A.M. w Warszawie Kierownik: Prof. dr S. Jablonska. (GONORRHEA ther)

ORLOWSKI, Witold J.; ZWIERZCHOWSKI, Ryszard; STEPNIAK, Roman

A case of Ascher's syndrome. Pol. tyg. lek. 18 no.22:795-797
27 M^y '63.

1. z Oddziału Okulistycznego; ordynator: doc. dr med. W.J.
Orłowski, z Oddziału Laryngologicznego; ordynator: dr R.
Zwierzchowski i z Oddziału Dermatologicznego w Warszawie;
ordinator: dr M. Zajfen.
(EYELIDS) (GOITER) (LIPS) (DISEASES)

ACCESSION NR: AP5019800

PO/0084/65/000/007/0019/0020

AUTHOR: Sztajerwald, J. (Engineer); Baniukiewicz, E.; Stepniak, S.; Weglewski, J.
(Engineers); Stanowski, Z. (Master engineer)

TITLE: Ionic fire prevention sensor

SOURCE: Przeglad pozarniczy, no. 7, 1965, 19-20

TOPIC TAGS: fire prevention, fire alarm, ionic fire sensor

ABSTRACT: The article describes an ionic sensor for detecting the outbreak of a fire for which a Polish patent (Patent No. 43 177 Class 74a, 30) was issued on Sept. 22, 1958. The owner of the patent is the Panstwowe Przedsiębiorstwo Poczta Polska, Telegraf i Telefon (Polish State Postal, Telegraph, and Telephone Service) in Warsaw. The sensor is activated during the very early stage of a fire by the presence of minimal quantities of foreign matter in the air, such as smoke, dust, and city gas. When activated, the device immediately disconnects the electric power supply to the malfunctioning apparatus, thus preventing the outbreak of a fire. At the same time, the device can raise the alarm or start air ventilation to cool the defective apparatus. Fig. 1 of the Enclosure shows the schematic of the device, which consists of a diode sensor connected through three conductors (of any length) to a one-stage DC amplifier and the signalling circuit. The cathode

Card 1/3

ACCESSION NR: AP5019800

of the diode sensor is a very thin platinum wire and the anode is made of plates or a spiral. The diode sensor is located in the air stream flowing from the apparatus under control. The cathode is heated to a certain fixed potential. Resistor R₂ controls the device sensitivity. Any change in the cathode temperature (e.g., due to the burning of fine particles or some gases in the air stream) immediately changes the diode current and thus energizes the device. Orig. art. has: 1 figure.

ASSOCIATION: Państwowe Przedsiębiorstwo Poczta Polska, Telegraf i Telefon, Warsaw
(Polish State Postal, Telegraph, and Telephone Service)

SUBMITTED: 22Sep58

ENCL: 01

SUB CODE: IE, EC

NO REF SOV: 000

OTHER: 000

Card 2/3

ACCESSION NR: AP5019800

ENCLOSURE: 01

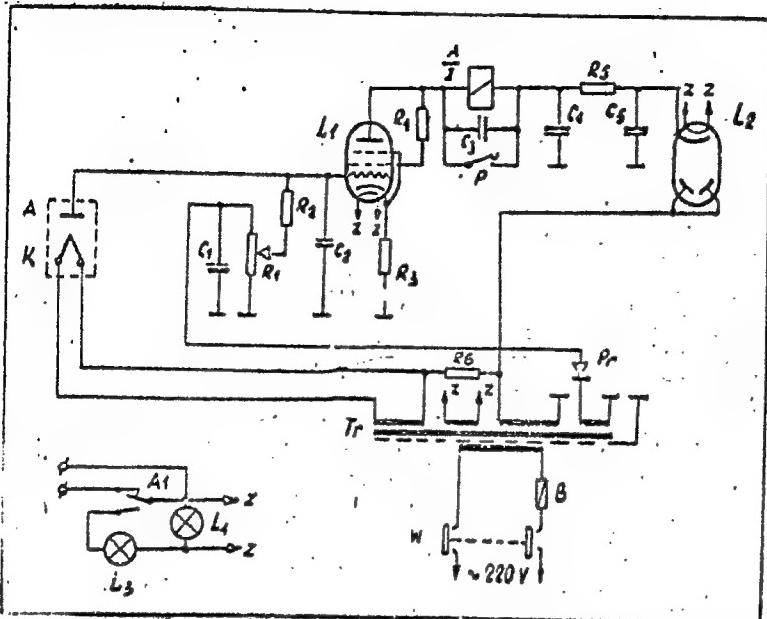


Figure 1. Circuit diagram of an ionic fire alarm.

Card 3/3

STEPNIAK, Stanislaw, inz.

Design problems of drop weight installations. Przegl
mech 23 no. 2: 50-53 Ja '64.

1. Starszy projektant, Biuro Projektowo-Konstrukcyjne,
Przedsiębiorstwo Projektowania i Dostaw Inwestycyjnych,
Wrocław.

STEPNIAK, Stanislaw, inz.

Design problems of pile driving installations. Przegl mech
23 no. 3:82-84 10 F '64.

1. Starszy projektant, Biuro Projektowo-Konstrukcyjne,
Przedsiębiorstwo Projektowania i Dostaw Inwestycyjnych,
Wrocław.

STEPNIAK, Stanislaw

Coupler hoisting winches and drop work drama. Problemy proj
hut maszyn 12 no.12:376-380 D '64.

1. Capital Investment Designing and Supplying Agency, Wroclaw.

STEINER, Stanislaw, Inc.

Crushing cast-iron scrap. Przegi masz 24. no. 10 313-310 75 by 105.

1. Casting Division of the Rosemont-Berges, Inc.

CZECHOSLOVAKIA/Radio Physics - Reception of Radio Waves.

I

Abs Jour : Ref Zhur Fizika, No 8, 1959, 13691

Author : Hosek, J., Stepnicka, B.

Inst :

Title : Microwave Frequency Discriminators.

Orig Pub : Slaboproudny obzor, 1958, 19, No 11, 737-745

Abstract : A survey is made of microwave discriminators, used in frequency-stabilization circuits. The Pound discriminator and the discriminator with through resonator are described. A theoretical design is proposed for a discriminator operating in the TE_{111} mode. The results of the calculation are compared with experiment. In conclusion, a summary table is given that lists the principal parameters of various discriminators.

Card 1/1

S/19462/CCO/11C/063/024
A055/A126

Cavity resonator with frequency control

rile in the resonator cavity. The influence of the material and of the geometrical relations of the resonator walls is examined. The characteristics of the system and the diagrams of the fields are reproduced and the structure of the resonator (consisting of framework, ferrite, coil and permanent magnet) is described. The parameters of a real system used for stabilizing the microwave klystron frequency are given. When the volume of the cavity resonator changes, the geometrical relations must be constant. The possibility of using cavity resonators for other frequency ranges with different ferrite types is examined.

V.N.

[Abstracter's note: Complete translation]

Card 2/2

STEINICKA, H.

The demineralization of water. p. 1⁹.

ZEGZUTKI DLA KNAUERÓW. (Polskie Towarzystwo Naukowe) Warszawa, Poland.
vol. 8, no. 1, 1959.

Mont by List of East European Acquisitions (EWA) 10, Vol. 9, no. 1, Jan. 1960.
Incl.

KUBANT, J.; STEPNIKOVÁ, Z.

Polarographic determination of the content of aromatic hydrocarbons
in coke oven gas. Paliva 41 no.8:253-257 Ag '61.

1. Ustav pro výzkum paliv.

SIMONEK, Boguslawa
SIMPSON, Boguslawa; Given Name

Country: Poland

Academic Title: Mgr

Affiliation: [not given]

Source: Warsaw, Farmacja Polska, Vol XVII, No 15-16, 25 Aug 61,
pp 323-326

Notes: "Old Pharmaceutical Houses in Poland/"

Stepniewski, L.

✓4183 085(075.3)
• Profic J., Stepniewski L., Szmidgal E., Zysa B. The Technology
of Fats. Part I.
„Technologia tłuszczy”. Cz. 1. Warszawa, 1954, Wyd. Przem. Lek.
i Spół., 16^o, 279 pp., 103 figs., 19 tabs.
Deals with the chemistry of fats. The first part contains sections
relating to: general information; production of animal and fish fats,
and waxes; treatment of oleaginous seed; purification and refining of
fats, and hardening of fats.

Ayer 4

S/081/62/000/013/051/054
B160/B101

AUTHORS: Sikorski, Bronislaw, Stepniewski, Ludwik, Grochowski,
Mieczyslaw, Swietorzecki, Karol

TITLE: Method of producing a fire-resistant composition for coating
timber

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 13, 1962, 641, abstract
13P274 (Polish patent 42701, January 15, 1960)

TEXT: Two different kinds of condensation thermosetting resins (I and II) are mixed with a fire-resistant salt and a low-temperature hardening catalyst. Resin I is prepared by the solution of 100 parts by weight of urea in 260 parts by weight of 37% CH₂O followed by thorough mixing and condensation. The reaction is initiated by atmospheric oxygen and is attended by the evolution of heat. The temperature is raised to 90°C and held there for three hours (pH 5.2-5.5), after which 1 part by weight of novolak dissolved in CH₃OH is added to stop the reaction. The resulting resin is cooled, dried at 110°C and ground to a powder. Resin II is

Card 1/2

STEPNIEWSKI, Marian

Scientific Session of the Japanese Mineralogical Association.
Przegl geol 10 no.10:559 O '62.

STEPNIEWSKI, Marian

Remarks on kaolinite from Zarowo in Upper Silesia.
Kwartalnik geol 6 no.4:739 '62.

1. Zaklad Geochemii, Instytut Geologiczny, Warszawa.

STEPNIEWSKI, Marian

Roentgenoscopic methods of quantitative determination of
the mineral content. Kwartalnik geol 6 no.4:741 '62.

1. Zaklad Geochemii, Instytut Geologiczny, Warszawa.

STEPNIEWSKI, Marian

The State Geological Institute of Japan. Przegl geol 10
no.12:671-674 D '62.

1. Instytut Geologiczny, Warszawa.

STEPNIEWSKI, Marian

Organization of the geologic schooling system and geologic scientific
research in Japan. Przegl geol 11 no.2:111-112 F '63.

1. Instytut Geologiczny, Warszawa.

WITNIOWSKA, Małgorzata

X-ray methods of quantitative determination of the mineral composition of mixed material. Przegl. geol. 11 no.10:453-455 0'63.

I. Zakład Geochemii, Instytut Geologiczny, Warszawa.

STEPNIEWSKI, Mieczyslaw, mgr inz.

Production of half-axial flow pumps in the Warsaw Pump Factory.
Przegl mech 22 no.14:439-442 25 Jl '63.

1. Zastepca glownego konstruktora, Warszawska Fabryka Pomp,
Warszawa.

Stepniewski, S.

✓ 1241

657.171
677.474.772 : 621.832.1

Stepniewski S. Tentative Use of Polyamide Fibres in the Production
of Driving Belts.

„Próba zastosowania włókien poliamidowych do produkcji pasów
napędowych”. Przemysł Wiólkenniczy, No. 2, 1955, pp. 43–45, 2 figs,
5 tabs.

Experimental use of polyamide yarn spun in the country (No. 2.7,
breaking length 20.8 km., average strength 11050 g., elongation 36 per
cent) for making belts. The belts were produced on a ribbon loom and
showed around 60 per cent greater tensile strength; when suitable pastes
were used slip was about 40 per cent less than with leather belts. After
some preliminary drawing, the polyamide belts do not draw further in
the course of work in looms and they can, like leather belts, be con-
nected one to another by sewing. Polyamide belts last as long as leather
belts and can be made at one fifth of the cost of a leather belt of the
same width.

Mutte

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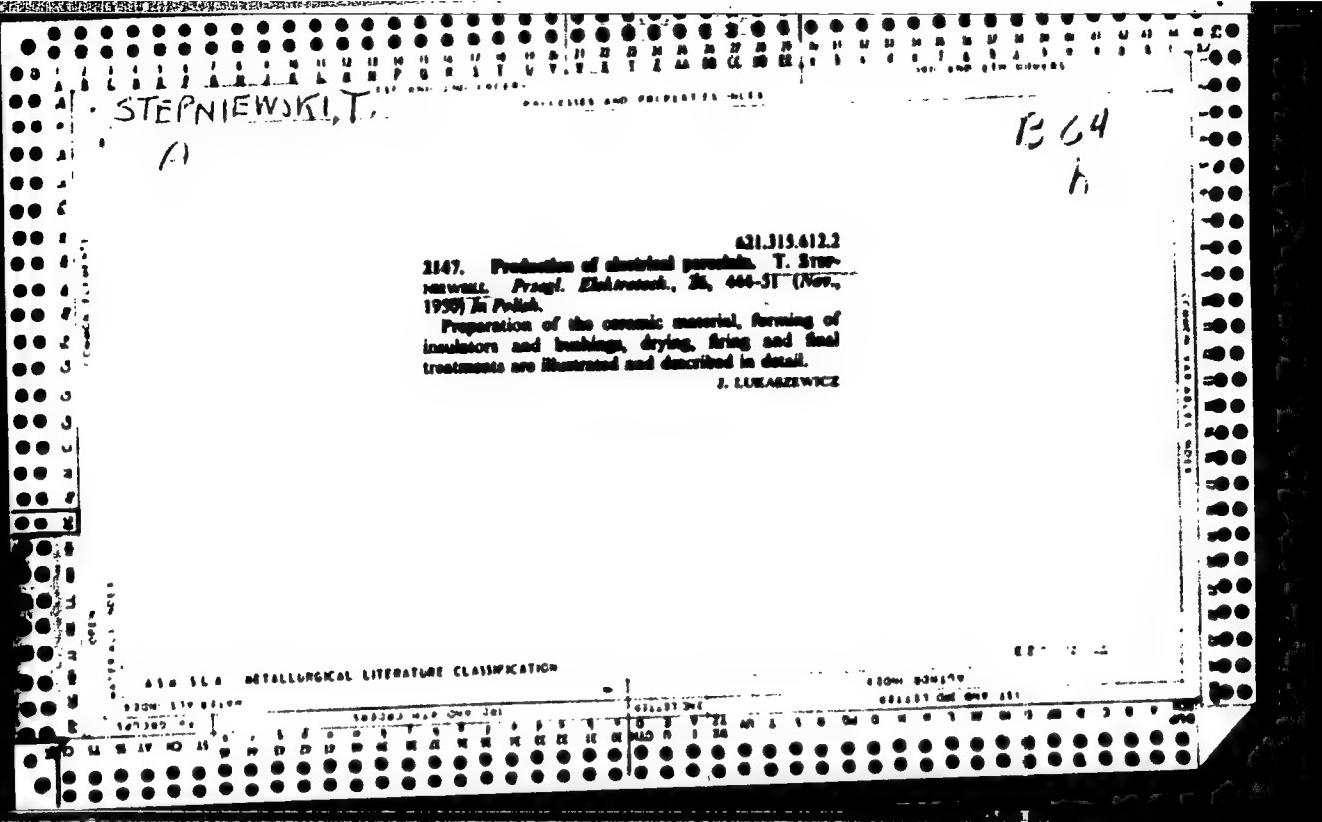
STEPNIKSKI, S.; UREANSKI, S.; GAZEL, A.

Cleaning cotton fabrics. Biuletyn Wlok. p. 2.

PRZEGLAD WLOKIENNICKY. (Stowarzyszenie Inżynierów i Techników Przemysłu
Włokienniczego) Łódź, Poland. Vol. 12, no. 1, Jan. 1958.

Monthly List of East European Accessions (EEAI) LC. Vol. 8, no. 7, July 1959.

Uncl.



STEPNIEWSKI

3766. THE PROBLEMS OCCURRING IN THE PRODUCTION
AND USE OF SUSPENSION INSULATORS AND OTHER STRUC-
TURAL EQUIPMENT OF OVERHEAD TRANSMISSION LINES.

I-II. T. Stepniewski.

Energetyka (Poland), Vol. 9, No. 6, 321-7 (1955); Vol. 10,
No. 1, 34-7 (1956). In Polish.

A comprehensive survey of the design, manufacturing
techniques and testing of single and multiple-disc suspension
insulators, including modern methods of non-destructive test-
ing. The design and mechanical arrangement of the towers
and lines are considered under the headings: (1) mechanical
strength coordination of the component parts; (2) the use of
antivibrational types of conductor clamps and line dampers;
(3) strainers for lines and staywires; (4) the use of crimped
conductor joints; (5) the design of arcing horns, rings, etc;
and (6) protection of the structure against corrosion.

E.M. Dembinski

STEPNIEWSKI, T., doc., mgr., insz

The scientific-technical conference "Insulators and fittings
in high voltage networks." Przegl elektrotechn 37 no.11:465-
467 '61.

STEPNIEWSKI, T.

Scientific-technical conference on "Insulators and Accessories in
High-Voltage Networks. Wiad elektrotechn 28 no.8:264 Ag '61.

STEPNIEWSKI, T.

Prevention of dermatologic and venereal diseases in 1951 according to
the Six Year Plan in health services. Przegl. derm., Warsz. 1 no.1:21-27
June 1951. (CIML 23:2)